

# PATENT ABSTRACTS OF JAPAN

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(21)Application number : 2001-133946 (71)Applicant : NIPPON PARKERIZING CO LTD  
(22)Date of filing : 01.05.2001 (72)Inventor : SAKO RYOSUKE  
UENO KEIICHI  
YAMAMOTO MAYUMI

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## (54) METALLIC SURFACE TREATING AGENT, METALLIC SURFACE TREATING METHOD AND SURFACE TREATED METALLIC MATERIAL

### (57)Abstract:

PROBLEM TO BE SOLVED: To provide a chromium-free metallic surface treating agent used for imparting excellent corrosion resistance and alkali resistance to a metallic material and to provide a metallic surface treating method and a surface treated metallic material using the same.  
SOLUTION: This metallic surface treating agent contains at least one kind of vanadium compound (A) and a metallic compound (B) containing at least one kind of metal selected from the groups consisting of zirconium, titanium, molybdenum, tungsten, manganese and cerium. For further improving the physical properties thereof, the prescription of the ratio of pentavalent vanadium ions to the whole vanadium and the incorporation of an organic compound having a specific functional group, an etching agent, a water soluble high polymer or/and a water-based emulsion resin are possible. The metallic surface treating method and the surface treated metallic material use the same treating agent.